OIPE IAP48 JUN 12 2006 PATENT & TRADEMARK OFFICE

REMARKS

The following remarks are made in response to the Final Office Action mailed April 6, 2006. Claims 1-22 were rejected. With this Response, claims 1, 13, and 18 have been amended. Claims 1-22 remain pending in the application and are presented for reconsideration and allowance.

Claim Objections

Claims 1, 13 and 18 were objected to because of the informalities. Applicant has amended claims 1, 13, and 18 as noted in the Office Action. Accordingly, Applicant respectfully requests the withdrawal of the claim objections to claims 1, 13, and 18.

Claim Rejections under 35 U.S.C. § 112

Claims 1-22 are rejected under 35 U.S.C. §112, second paragraph, as being independent for failing to particularly point out and distinctly claim the subject matter which application regards as the invention.

With regard to the first issue under 35 U.S.C. §112, second paragraph, raised in the Office Action, claim 1 recites "[a] method for generating a printed circuit board design module". In particular, claim 1 recites, *inter alia*:

> compiling information ...;
> determining one or more high level constraints that are usable with the information ...; and
> ... generating the printed circuit board design module such that the printed circuit board design module includes the information and such that the printed circuit board design module is configured to receive the one or more high level constraints and generate the low level details using the information in response to receiving the one or more high level constraints.

The Examiner states that "[i]t is indefinite if the step of 'generate the low level details' is performed in an iterative mode as claims while the Specification of the instant Application states on the page 3 lines 19-23 .... Applicant respectfully submits that claim 1

does not recite the step identified by the Examiner "performed in an iterative mode" nor is such a step implied by the Specification. Claims 13 and 18 recite similar features.

Applicant respectfully refers the Examiner to Figures 1 and 2 and the Specification at page 3, line 24 to page 4, line 16. Based on at least this portion of the Figures and Specification, Applicant respectfully submits that claims 1, 13, and 18 clearly define the sequence of steps of "generating a printed circuit board design module". Accordingly, Applicant respectfully submits that claims 1, 13, and 18 meet the requirements of 35 U.S.C. §112, second paragraph, and respectfully request the withdrawal of this rejection.

With regard to the second issue under 35 U.S.C. §112, second paragraph, raised in the Office Action, Applicant respectfully notes that claims 1, 13, and 18 all recite "*compiling information* that is usable to derive one or more low level details associated with a printed circuit board" (emphasis added). The Examiner appears to be reading these features of claims 1, 13, and 18 as positively reciting the step of deriving low level details ("while the low level details have been derived in the first limitation (Claims 1, 13, and 18) already", Office Action at page 3). Applicants respectfully note that claims 1, 13, and 18 do not recite deriving the low level details. Rather, the phrase "usable to derive one or more low level details associated with a printed circuit board" modifies the recited "information" and does not imply deriving the low level details. Accordingly, Applicant respectfully submits that claims 1, 13, and 18 meet the requirements of 35 U.S.C. §112, second paragraph, and respectfully request the withdrawal of this rejection.

Claim Rejections under 35 U.S.C. § 102

Claims 1-22 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,546,321 (Chang).

Claim 1 recites, *inter alia*:

> compiling information that is usable to derive one or more low level details associated with a printed circuit board;
> determining one or more high level constraints that are usable with the information to generate the low level details subsequent to compiling the information; and
> subsequent to determining the one or more high level constraints, generating the printed circuit board design module

> such that the printed circuit board design module includes the information and such that the printed circuit board design module is configured to receive the one or more high level constraints and generate the low level details using the information in response to receiving the one or more high level constraints.

Chang teaches the *use* of "a manufacturability expert system" with an "inferencing engine". Figures 8 and 9 and col. 14, line 33 through col. 16, line 24. Chang further teaches a "Forward Mode Operation of the Inference Engine", col. 15, line 60 to col. 16, line 14, and a "Backward Mode Operation of the Inference Engine", col. 16, lines 15-25. Chang does not teach or suggest a method for generating the "manufacturability expert system".

Claim 1 recites "[a] method for generating a printed circuit board design module". Chang does not teach or suggest "subsequent to determining the one or more high level constraints, generating the printed circuit board design module" as recited in claim 1.

Accordingly, Applicants respectfully submits that claim 1 patentably distinguishes over Chang for at least these reasons. Claims 2-12 depend from claim 1 and are believed to patentably distinguish over the cited reference for at least the above reasons. Accordingly, Applicants respectfully request the withdrawal of the rejection of claims 1-12 under 35 U.S.C. §102(b).

Applicants respectfully submit that claims 13 and 18 patentably distinguishes over Chang for at least the reason given above for claim 1. Claims 14-17 depend from claim 13 and Claims 19-22 depend from claim 18 and are believed to patentably distinguish over the cited reference for at least the above reasons. Accordingly, Applicants respectfully request the withdrawal of the rejection of claims 13-22 under 35 U.S.C. §102(b).

Provisional Double Patenting

Claims 1-22 are provisionally rejected on the ground of nonstatutory obvious-type double patenting as being unpatentable over claims 1-21 of copending Application No. 10/193,623. Although Applicants respectfully traverse this rejection – particularly the statement that "[t]he corresponding claims are different in the wording but clearly disclose

the same material", Applicants respectfully defer responding to the provisional rejection until the claims of the '623 application are patented.

CONCLUSION

In view of the above, Applicant respectfully submits that pending claims 1-22 are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 1-22 is respectfully requested.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to either Christopher P. Kosh at Telephone No. (512) 241-2403, Facsimile No. (512) 241-2409 or David A. Plettner at Telephone No. (408) 447-3013, Facsimile No. (408) 447-0854. In addition, all correspondence should continue to be directed to the following address:

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CERTIFICATE UNDER 37 C.F.R. 1.8: The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope address to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 6th day of June, 2006.

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